Missouri Botanical Garden
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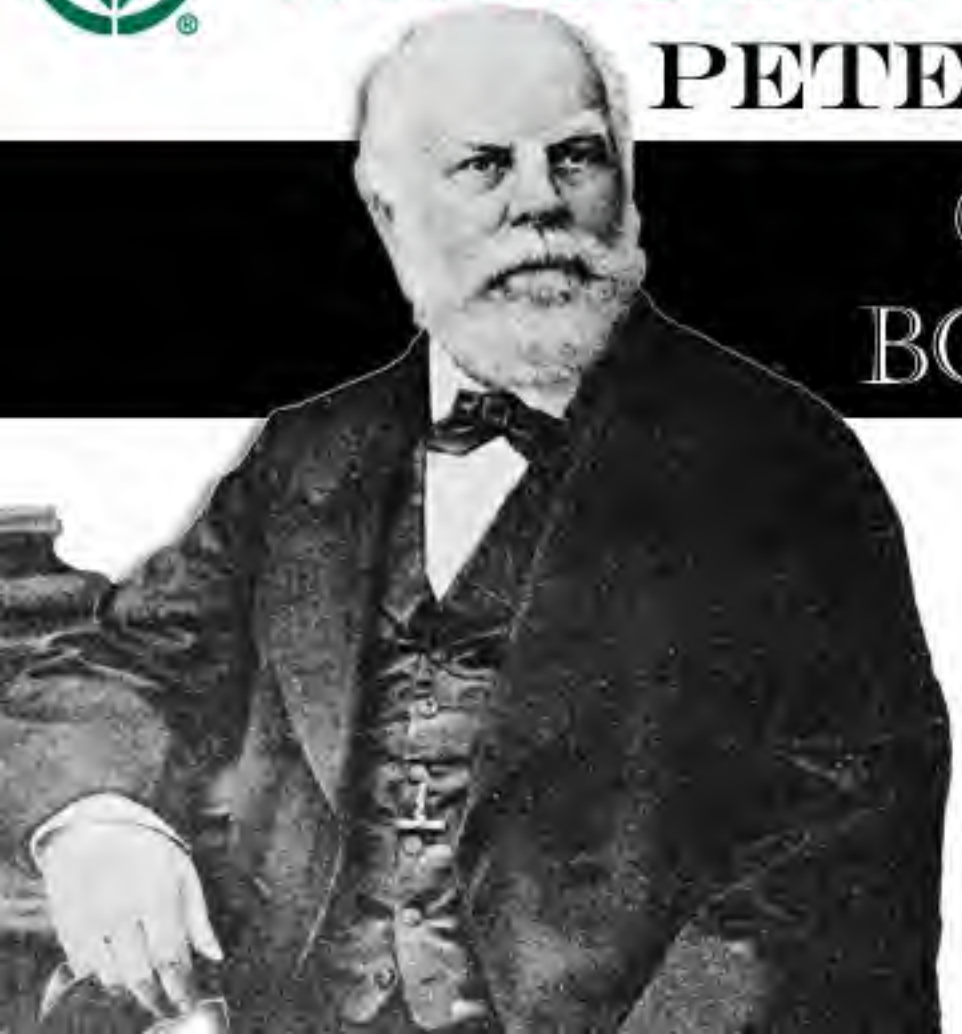
George Engelmann Botanical Notebooks



Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Gortes flavida Shuttlew. ap. A. Braun
in Flora 1846 no 12 (31 March)
leaves 1½–2 inches long light green
with stomata on both sides, veins
velum entire, sporangia small (3–4 in
macrospore 0.38–0.42 mm. covered with
flattish wrinkles. — North Florida
Dr Garber (1878) collected much further South
what must be the same species — it
has one set, 10–20 leaves, 4–6 inches long
in another 25–35 leaves, 12–14 inches long
with stomata on both sides very slender petiole
bundles, velum entire sporangia oblong to ~~oblate~~
4–5 in a log, macrospore 0.33–0.42 mm
covered with isolated or confluent or labyrinthine
flattish tubercles, sometimes only a few.

Var Chapmanii has 30 leaves, 18 inches long
broader, same bast bundles, sporangia
similar or more orbicular, macrospore
0.43–0.52 mm diam, with rather smaller
verrucate, confluent tubercles, and
ridges sometimes almost smooth
Isospore 0.027–0.030 mm slightly
papillose.

all have light green leaves (Lake Eugelia,

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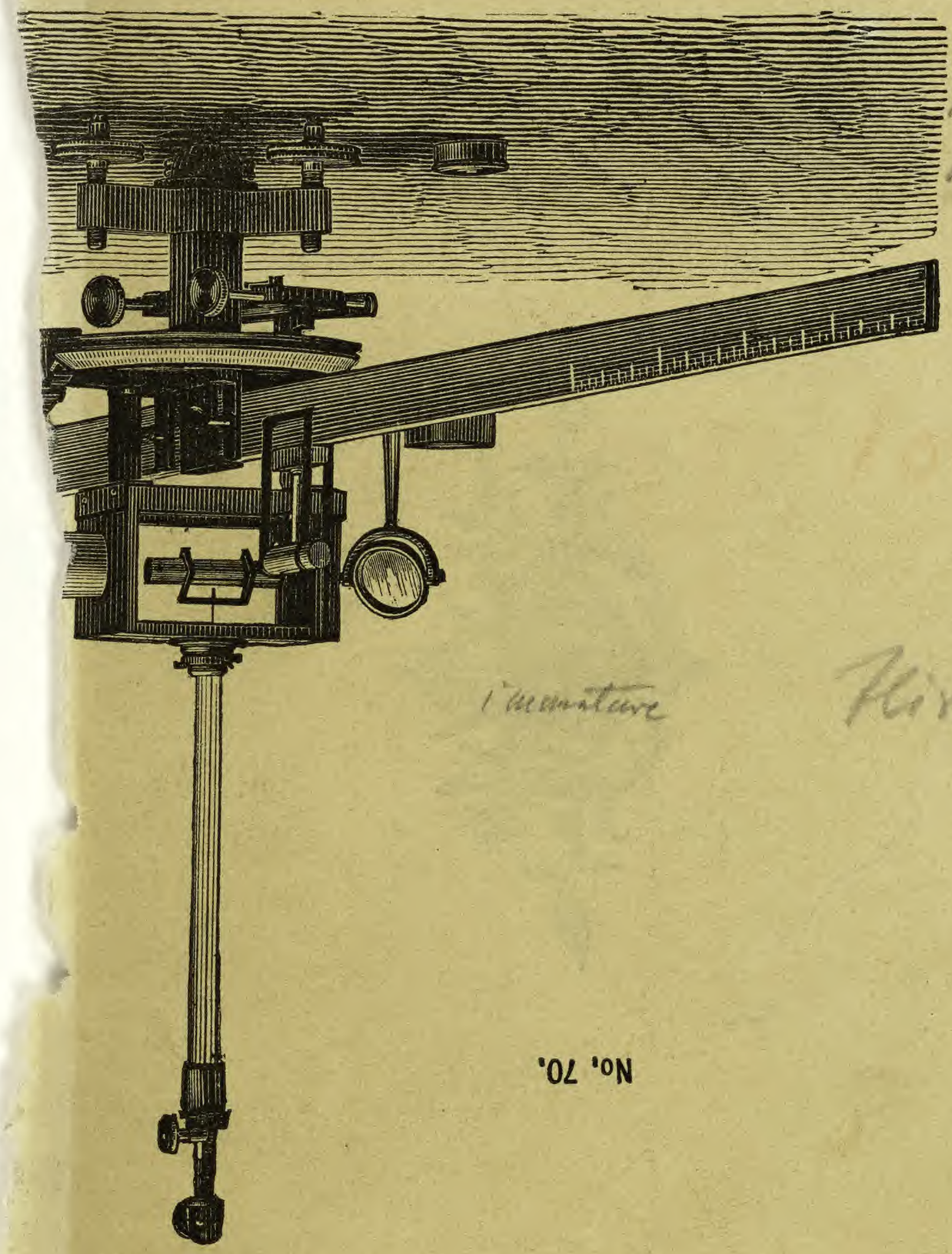
Azores Flora



No. 70.

Fl. Lusit. 0.30 - 38.
Mauritz 0.33 - 42

1004 - 1574

Flora Selec 0.018 - 19 ?

Flore Lusitanicae

13748

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(on label; Aug 1850)

Chapman's specimens were collected about (1855)
in a clear pool of shallow water near Marianna
West Florida, — a rod in diameter and about
a foot deep; this basin was covered with Isoetes,
all submerged, except where the tips of the
leaves floated on the surface

In 1837–1840 when Dr Chapman resided in
Mariana and visited that lake often, there
was no vestige of it; it was then a clear open
pebbly pool of cold water.

Marianna is abt 40 or 50 miles West or a little north of west
of Lake Jamonia

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Otto D'Amour,
Druggist and Apothecary,

North-West Corner of

BROADWAY & CHAMBERS ST.,

SAINT LOUIS, MO.

℞

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Isoetes flaccida Schuttlw

Dec 12 1866

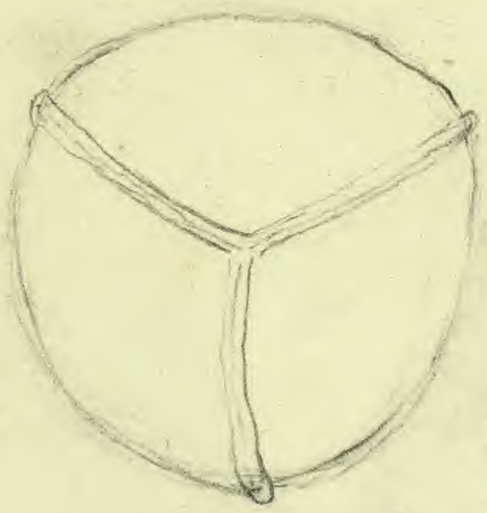
Fl. Cuba, Chapman ≐ Herb Gray (no date)

33 leaves 35–43 cent. long,
bulb 16 mm. diam.
(another specimen has only 10–12
leaves, bulb 8 mm diam)
leaves bright green
microsp. 0,026–0,030

$\frac{26-31}{60}$ = 0.43–0.52 mm

×415

×60



microspores in same specimen or even in same sporangium smooth or triangular faces nearly smooth and lower half or hemisphere with large often confluent tuberosities or sinuous

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ALEX. LEITCH,

APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St Louis, Mo.

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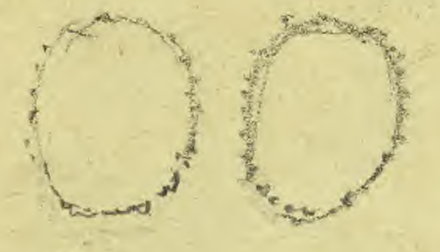
Diam of spores × 60

1 191

$\frac{27-31}{60}$ = 0.45–51 mm



androspore × 485 = 0,029

Scaeter Febr 15 1866

Marianna, West Florida – a clear Chapin Aug 1850 Limestone spring

. Spores not quite ripe; androspores in the base of an outside leaf — therefore nanospores probably present on ♀

Species sent Dr Braun

(Scarcely a doubt but this is D. Langloisianum)

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M. W. ALEXANDER,

18751

SOUTH-EAST CORNER FOURTH AND MARKET STREETS

ST. LOUIS.

Boeckeleria floridana

Dec 12 1866

Reid, Chapman — Fl. Fragm
(no date)

×280

×280

×280

Cells of Velum

Cells of Sporangium
covered by Velum

×2

×2

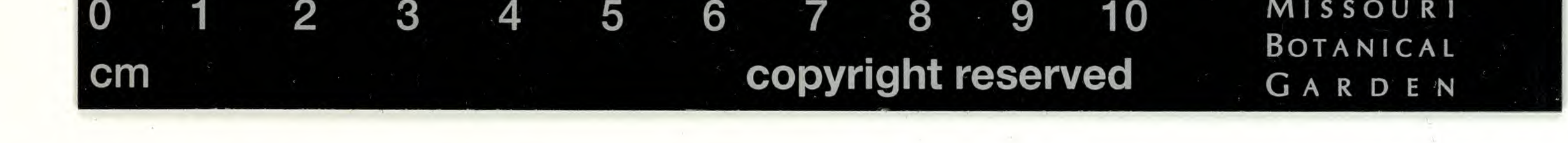
Stomata

Ligula
Shrivelled

velum entire?

macrosporangia

microsporangia



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Isoetes flaccida Schuttlew. ex Engelm. & A. Braun in Flora

Braun in litt April 1867:
submerged, long leaved, caught 65 rent (over 2 feet long!),
sporangia, best bracted; sporangia small 3-4 m/m long 3 wide
velum entire; macrospores 0.38-0.42 covered on all surfaces with flattish
obtuse labyrinthic ridges or wrinkles. microspores ?

Chapman has larger spores, larger tubercles & ridges
but leaves

Schweinitz, Catalogue Sloanea (Braun in litt)
leaves ex 6 rentim. = 18-25 inches long (Prof Gray)
smallest spores (0.34-0.42) Braun in Proc. Gard.
among

13753

Alex. Leitch.

APOTHECARY & CHEMIST,

Cor. 4th & Olive Sts., St. Louis.

Lake Jamonia, Rugel — probably not so much, 15 or 20
Middle Florida 25 or 30 miles north of Tallahassee
towards the Georgia line — or northwest
(Chapman got his at Marianna — west Florida)

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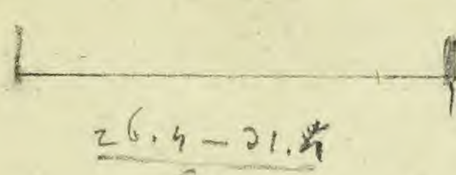
Isoetes Chapmani June 3 1867

Lakelet at Marianna, Florida

Dr A.W. Chapman



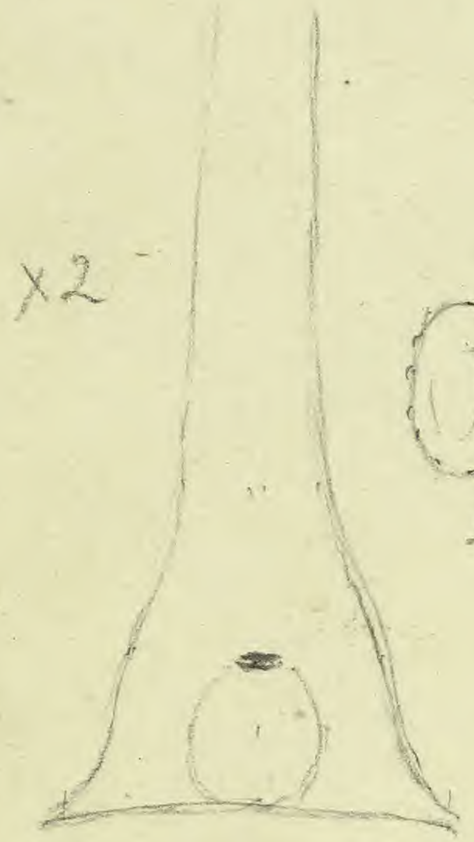
$\frac{26.4 - 21.4}{60}$ = 0.44 — 0.52 mm

mostly 0.47 — 0.50

leaf section about middle x10

4 bast bundles

x2

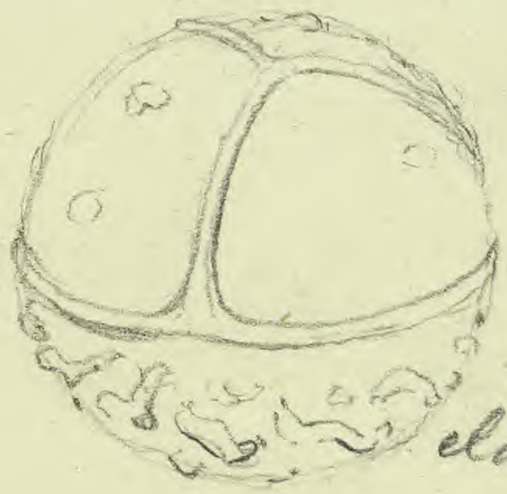


$\frac{10 - 12.5}{415}$ = 0.027 — 0.030

30 leaves, 1 mm diam 47 cm long.

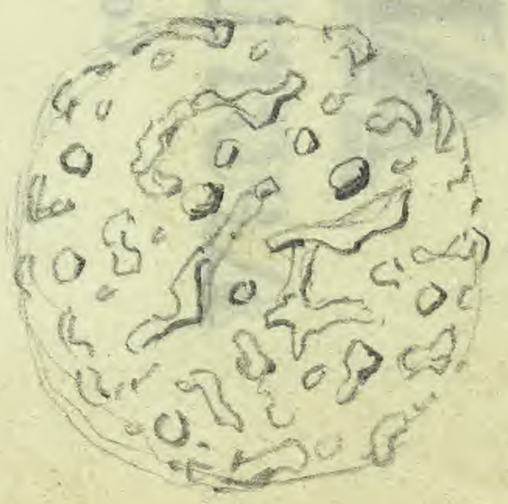
30 leaves, longest 18 inches or 47 centim long.

in the middle only 1 mm wide



upper segment, sometimes smooth usually with a few tubercles wavy and faint, or more distinct, mostly elongated.

one of the exterior leaves with circular sporangium, velum entirely covering it



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137548

137548A

cm 0 1 2 3 4 5 6 7 8 9 10

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Sodes florida
in rich vegetable mud
immersed or getting dry, Manatee, Florida April 23 '78
May 7 1878

Dr A. P. Garber

Sporidia original Rugulose spore
hyaline spore 0.38 – 42

Diam. of marrow spores $\frac{20-25}{60}$ = 0.33 – 0.42 mm
mostly 0.38

upper side

×60

lower side
of another

lower side
of a large spore
with more delicate
vermiculate ridges

×2

13755

Henry T. Rohlfing,

APOTHECARY,

No. 2600 Laclede Ave., S. W. Cor. Jefferson Ave.,

ST. LOUIS, MO.

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Geo. Engelmann, M. D.,

No. 3003 Locust Street.

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Boetia, florida
D Garber

May 7 1878

1878

Manatee

leaves 12–14 inches long, about 2 mm wide
25–35 ÷ number
yellowish green
stomata

4 very large
peripheral
bundles.

x 150

upper side 1 celled

x 10

ventral side

lateral wall
2 celled

transverse
partition 2-celled

lower wall 1 celled

cells 0.45–0.8 mm diam

epidermis cells, 0.20–0.25 mm dia
and on edge only 0.13 mm

x 280

stoma from inside
with parenchyma
cells

13756

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14 - 22
O.A.T - 0.8 "

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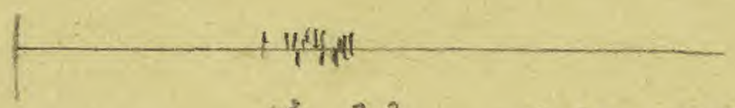
Isoetes flaccida Shutt. forma emersa April 29 1879
wet borders of Lake Flirt Florida A. P. Garber Aug 1878

leaves 10–20
4–6 inches long
very slender



$\frac{18-23}{60}$ = 0,30 – 0,38 mm Diam

microspores not quite mature – transparent

$\frac{7.5-8}{415}$ = 0.018–0.019 mm

×60

& This last bears microsporangia exactly like the plant of April 23, 1878
Leaves short dark green not long yellow-green

Dorsal view
×2

13757

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APOTHECARY,

No. 2600 Laclede Ave., S. W. Cor. Jefferson Ave.,

ST. LOUIS, MO.

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Isoetes Engelmanni

Specimens just gathered had leaves 21 – 24 inches long, one other one was 25 inches long, excluding the bulb; 6 – 8 inches were in mud.

They grow in mud which covers a gravel bottom.

Wm M. Canby, Phila. Oct. 12 1866

"PHOTOGRAPHIC EQUIPMENT"
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M. KOVÁCS,

-APOTHECARY-

Franklin Avenue, bet. 18th & 19th Streets,

ST. LOUIS, MO.

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Isoetes flaccida?, Bottom of Silver Lake, Florida (also with Chara?)
2–3 feet long, floating on the bottom in deep water
Lake 30–35 feet deep.
Prof John Lewonte

Mr. Meehan and Prof. S. have kept me so busy on Saturdays, that I have not been able to do so.

Very truly

13759

Woëkes Engelmanni Vorkommen

St Louis d 6 Octob 1865

Lieber Bruder

Ich habe mich recht gefreut einen
so grossen, guten Brief von Dir zu
erhalten, in den viele Erkundigungen
über Deine Gesundheit enthalten waren.
Ich danke Dir dafür! Leben wir
Gott sei Dank Alle gesund, und
auch die Geschäfte gehen recht wohl.
Ich gedenke zu reisen.

Wenn wir die Eisenbahn
nach Keokuk hätten! Mit welcher Wollust
wollte ich mich dann in die prächtigen
Wälder werfen — wieder Thiere
schießen — Hirsche! Und der Herr
der Berge grüßt.

Ich habe dies mir gute Zeit angelegen
sein lassen aber will ich Deos propitios
mache mich Abends! Und wenn
Du mich die Leberfarbigen, mit Chaves,
Isoetes! Ich habe mir eben selbst
von Niagara Fall, aber ob selbst da selbst
gesprochen zu den 22 pfündigen Abarnitzen
Clinton da in seinen Jagden Edwards hielt
Ich sah in ganz Ferne rechts bei seinem
ganzen Fort! Ihm zunächst mit
Major Majors nächste dritte Gagne. Herr
Du die dem gefangen Engländer dann
gethan? Meiner Doctor ist schon seit
dem Herbst, da ich zuerst 1856 in Lake
Winnepesaugee fand; so ist selbst Schiff

Ich war die ersten Blätter mit Manuskript abgefüllt habe, sind die alle Pflanzen mit Namen versehen!

Sind denn welche von der gesandten Arten?

D. melanopoda ist die mit purpurfarbenen Blüthen von allen diesen Doldenarten, die ich hier gefunden habe. D. Engelmanni ist eine Form mit Lehigh (Liff Lecha!) flüssen, Flüssen gefunden, Moosen - abgegeben von der Abtheilung als D. canadensis. D. Engelmanni ist eine Form von Ohio - Pennsylvanien, New Jersey - Delaware und alle gesammelten Exemplare (Umgegend von Philadelphia) gehören auch eher sonst wo wird gefunden werden - Ohio - Kentucky ist noch die Heimath dieser Pflanze!

Oben ist eine Art!

aber was sind die — jetzt fällt mir ein! Ich habe sie in die Büchse gethan? Ich habe sie nicht! Nicht das Papier zum Art ist nicht getrocknet, aber die Pflanze ist Art der Exemplare, die E. Meyer sah Pflanze gesandt — Hooker auf unser.

Meyer p. 6. Blatt D. Mertensiana? D. falcata sind (siehe 6. Flor. Rossica selbst) die Bentham Hb — Gray Herb die ich gibt hier in diesem Falle, sind D. Engelmanni, Arten, welche gar nicht sind!! Nur ich eben Exemplare von die will, ist nicht, wo Meyer Herb (Sweden) ist ob eine Pflanze ist Art — aber an diese

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